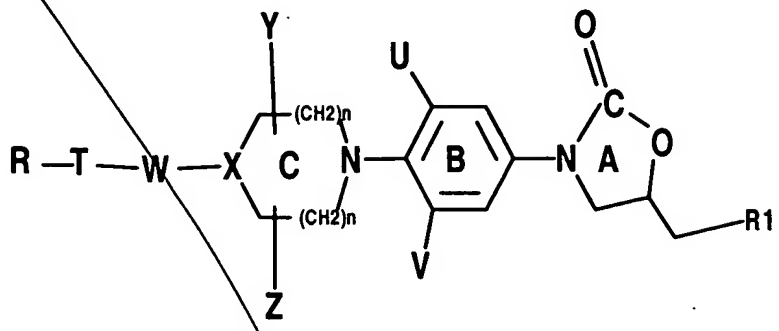
CLAIMS:

1. A compound having the structure of Formula I



FORMULA I

and its pharmaceutically acceptable salts, enantiomers, diastearomers, N-oxides, prodrugs or metabolites, wherein

T is five to seven membered heterocyclic ring, aryl, substituted aryl, bound to the ring **C** with a linker **W** and the heterocyclic and aryl rings are further substituted by a group represented by **R**,

wherein R is selected from the group consisting of alkyl (C_{1-6}), halogen–CN, COR_5,$COOR_5$, $N(R_6,R_7)$, CON (R_6, R_7), CH_2NO_2, NO_2, CH_2R_8, CHR_9, -CH = N-OR_{10}, -C=CH-R_5, wherein R_5 is selected from the group consisting of H, optionally substituted C_1-C_{12}, alkyl, C_{3-12}, cycloalkyl, aryl, heteroaryl; R_6 and R_7 are independently selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently selected from the group consisting of H, C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, OR_4, SR_4, $N(R_6,R_7)$ wherein R_4 is selected from the group consisting of H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more F, Cl, Br, I or

OH and R_6 and R_7 are the same as defined earlier, R_{10} is selected from the group consisting of H, optionally substituted from H, optionally substituted C_{1-12} alkyl, C_{3-512} cycloalkyl, $C_{1-6,}$ alkoxy, C_{1-6} alkyl, aryl, heteroaryl;

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O and N

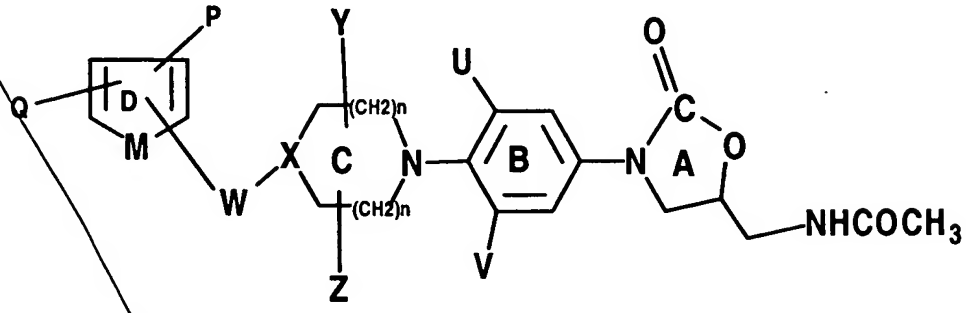
Y and Z are independently selected from the group consisting of hydrogen , C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

U and V are independently selected from the group consisting of optionally substituted C_{1-6} alkyl , F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, preferably U and V are hydrogen or fluoro;

W is selected from the group CH_2, CO, CH_2NH, $-NHCH_2$, $-CH_2NHCH_2$, $-CH_2-N(R_{11})CH_2-$, -CO-CO-, $CH_2(R_{11})N-$, $CH(R_{11})$, S, $CH_2(CO)$, $N(R_{11})$ wherein R_{11} is hydrogen, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl or heteroaryl;

R_1 is selected from the group consisting of - $NHC(=O)R_2$ wherein R_2 is hydrogen, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH; $N(R_3, R_4)$; $-NR_2C(=S)R_3$; $-NR_2C(=S)SR_3$ wherein R_2 is the same as defined above and R_3 and R_4 are independently selected from the group consisting of H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH.

2. A compound having structure of Formula II



FORMULA II

and its pharmaceutically acceptable salts, enantiomers, diastearomers, N-oxides, prodrugs or metabolites wherein

M= O, S, NH, N-CH_3;

X is CH, CH-S, CH-O and N;

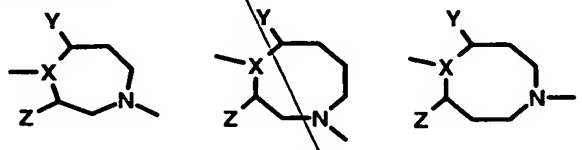
Y and Z are independently selected from the group consisting of hydrogen , C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

U and V are independently selected from the group consisting of optionally substituted C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, preferably U and V are hydrogen or fluoro;

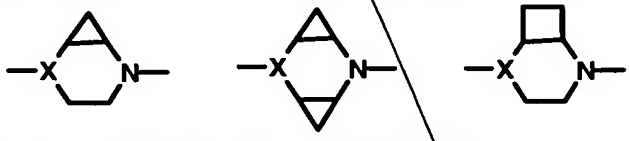
W is selected from the group consisting of CH_2, CO, CH_2NH, -$NHCH_2$, -CH_2NHCH_2, -CH_2-N (R_{11}) CH_2 - , CH_2 (R11) N -, CH (R_{11}) , S, CH_2(CO), NH wherein R_{11} is optionally substituted with C $_{1-12}$ alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C $_{1-6}$ alkyl , aryl , heteroaryl except when M=S, Q=P=H, W=(C=O);

n is an integer in the range from 0 to 3; and,

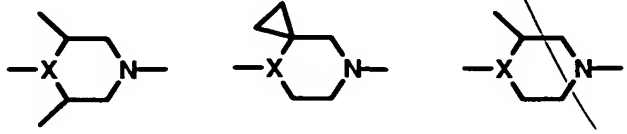
Q and P are independently selected from the group consisting of -CN, COR_5, $COOR_5$, N (R_6, R_7), CON (R_6,R_7), CH_2NO_2, NO_2, CH_2R_8, CHR_9, -CH=N-OR_{10}, C=CH-R_5, wherein R_5 is selected from the group consisting of H, optionally substituted C_{1-12}alkyl, C_{3-12} cycloalkyl, aryl, heteroaryl; R_6 and R_7 are independently selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently selected from the group consisting of H, C_{1-6} alkyl ,F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, OR_4, SR_4, wherein R_4 is selected from the group consisting of H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more F, Cl, Br, I or OH, N(R_6, R_7), R_{10} is selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C $_{1-6}$ alkyl, aryl, heteroaryl except W= (CO), Q and P =H and M=S, ring C in Formula II is 6-8 membered or of larger size and the larger rings have either two or three carbons between each nitrogen atom, comprising of



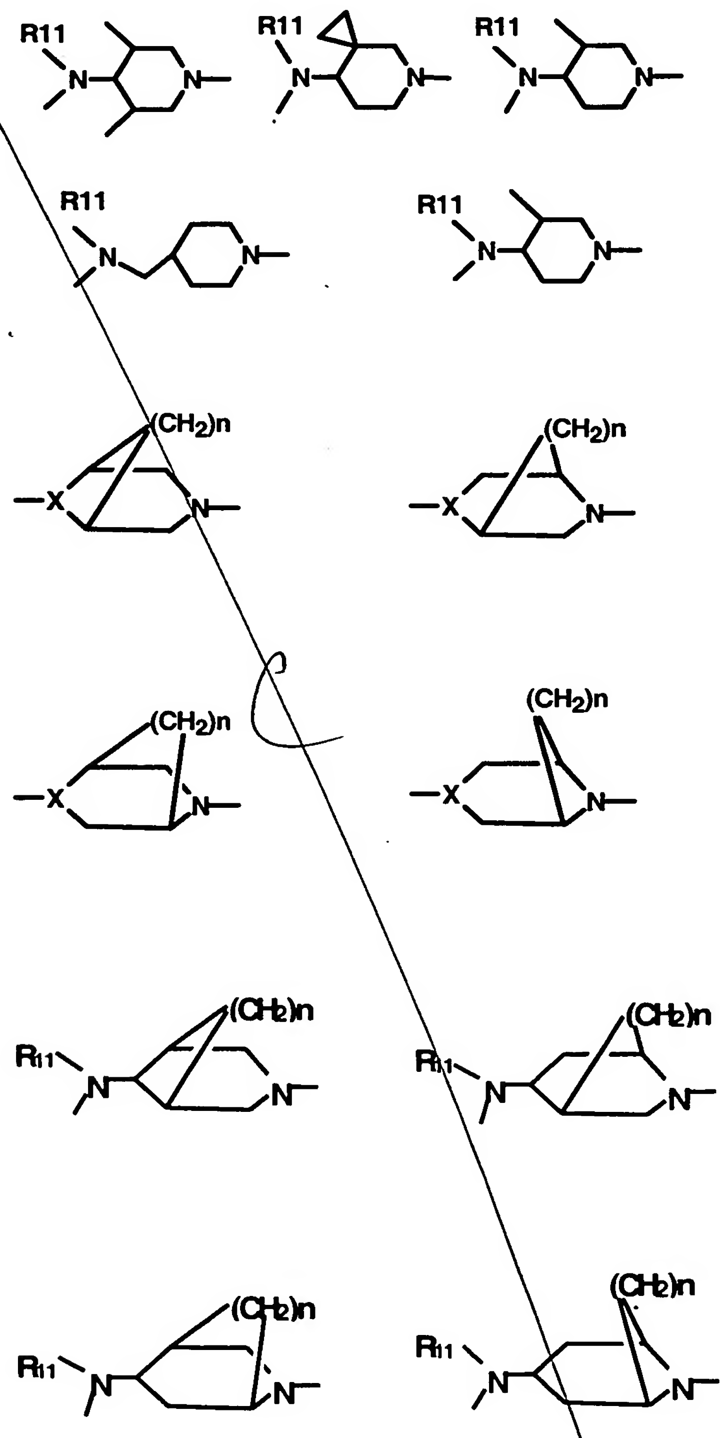
and may be bridged to form a bicyclic system as shown below,



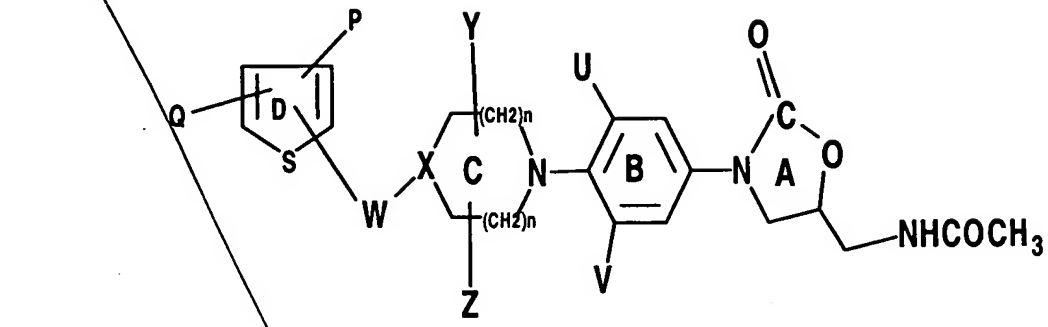
ring C is optionally substituted by Y and Z with alkyl groups, cycloalkyl groups, fluoro group, carboxylic and corresponding esters, amides, substituted alkyls or bridging alkyl groups are as shown below:



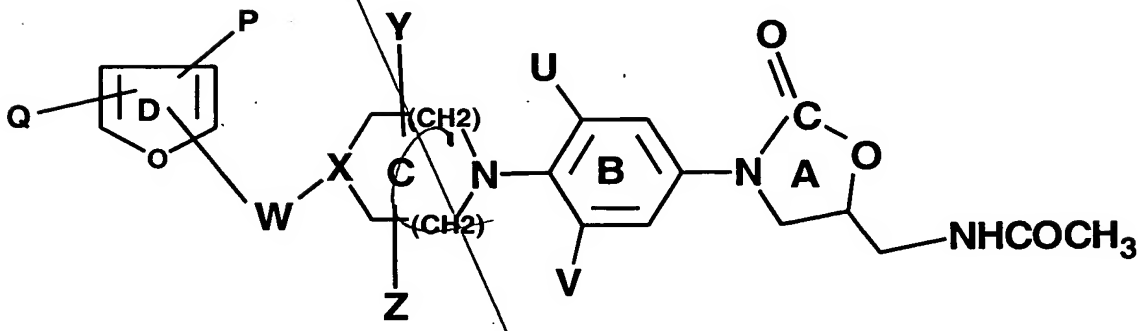
six membered ring C with X = -CH-(NR_{11}), (wherein R_{11} is the same as defined earlier) is selected from the group consisting of the following rings;



wherein M = Sulphur and Oxygen as shown by Formulae III and IV respectively,



Formula III



Formula IV

wherein **P, Q, U, V, X , Y, Z, W and n** in Formulae **III** and IV as defined earlier for Formula I.

3. A compound selected from the group consisting of

1. (S)-N-[[3-[3-Fluoro-4-[N-1-[4-(2-furoyl) piperazinyl]]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide
2. (S)-N-[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

3. (S)-N-[[3-Fluoro-4-[N-1[4-(2-furyl-(5-carboxyethyl)methyl)piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide
4. (S)-N-[[3-Fluoro-4-[N-1[4-(5-bromo-2-furoyl)]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide
5. (S)-N-[[3-Fluoro-4-[N-1[4-(5-chloromethyl-2-furoyl)piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide
6. (S)-N-[[3-Fluoro-4-[N-1[4-(5-nitro-2-furoyl)piperazinyl]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide
7. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-(2-thienyl)dicarbonyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide
8. (S)-N[[3-[3-Fluoro-4-[N-1[4-(3-furoyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl] acetamide
9. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-bromo)methyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide
10. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(5-chloro)methyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide
11. (S)-N[[3-[3-Fluoro-4-[N-1[4-(2-furylmethyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl] methyl]acetamide
12. (S)-N-[[3-[3-Fluoro-4-[N-1[4-(2-thienylmethyl)]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide
13. (S)-N[[3-[3-Fluoro-4-[N-1[4-(2-thienylacetyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl] methyl]acetamide
14. (S)-N-[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(4-bromo)methyl}]piperazinyl] phenyl]-2 oxo-5-oxazolidinyl]methyl]acetamide
15. (S)-N-[[3-[3-fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide.

16. Hydrochloric salt of (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-nitro)methyl}]piperazinyl] phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

17. Citrate salt of (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-nitro)methyl}]piperazinyl] phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

18. (S)-N[[3-[3-Fluoro-4-[N-1[4-(2-pyrrolylmethyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

19. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(3-methyl)methyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

20. (S)-N[[3-[3-Fluoro-4-[N-1[4-(3-furylmethyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl] methyl]acetamide

21. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(5-methyl)methyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

22. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-pyrrole(1-methyl)methyl}]piperazinyl] phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

23. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(5-nitro)methyl}]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

24. (S)-N[[3-[3-Fluoro-4-[N-1[4-[2-furyl{5-(N-thiomorpholinyl)methyl}methyl]piperazinyl] phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

25. (S)-N[[3-[3-Fluoro-4-[N-1[4-[2-furyl{5-(N-morpholinyl)methyl}methyl]]piperazinyl] phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

26. (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-acetoxymethyl)methyl}]piperazinyl] phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

27. (S)-N-[[3-Fluoro-4-[N-1[4-{2-thienyl(5-bromo)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

28. (S)-N-[[3-Fluoro-4-[N-1[4-(5-nitro-2-furylmethyl)piperazinyl] phenyl]- 2-oxo oxazolidinyl]methyl]dichloroacetamide

29. (S)-N[[3-[3-Fluoro-4-[N-1[4-(5-nitro-2-thienoyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide hydrochloride

30. (S)-N[[3-[3-Fluoro-4-[N-1[4-(2',2'- diphenyl-2' hydroxy acetyl)]piperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

31. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-nitro-2-furoyl)-N-methyl]amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

32. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(3-furoyl)-N-methyl]amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

33. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-bromo -2-furoyl)-N-methyl] amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide

34. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-nitro-2-thienylmethyl)-N-methyl]amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

35. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-nitro-2-furylmethyl)-N-methyl] amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide

36. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-formyl-2-furylmethyl)-N-methyl] amino-methyl]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide

37. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-carboxyethyl-2-furylmethyl)-N-methyl] aminomethyl]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

38. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(2-thiopheneacetyl)-N-methyl]aminomethyl]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

39. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-nitro-2-thienylmethyl)-N-methyl]amino-methyl]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

40. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-nitro-2-furylmethyl)-N-methyl]amino-methyl]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

41. (S)-N-[[3-[4-[4-(N-methyl-N-2furyl(5formyl)methylaminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl]methyl]acetamide

42. (S)-N-[[3-[4-[4-(N-methyl-N-(3,5-difluorobenzoyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide.

43. (S)-N-[[3-[4-[4-(N-methyl-N-(5-bromo-2-furoyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide

44. (S)-N-[[3-[4-[4-(N-methyl-N-(5-nitro-2-furoyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl]methyl]acetamide

45. (S)-N-[[3-[4-[4-(N-methyl-N-3- furoyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl]methyl]acetamide.

46. (S)-N-{3-[4-[4-(N-methyl, N- 2-furoyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl methyl]acetamide

47. (S)-N-{3-[4-[4-(N-methyl,2-thiopheneacetyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo oxazolidin-5-yl methyl]acetamide

48. (S)-N-[[3-[4-[4-(N-methyl-N-2furylmethyl) aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl]methyl]acetamide

49. (S)-N-[[3-[4-[4-(N-methyl-N-3-furyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide.

50. (S)-N-[[3-[4-[4-(N-methyl-N-2-furyl(5-nitro)methyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide.

51. (S)-N-[[3-[4-[4-(N-methyl-N-2-thienyl(5-nitro)methyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide.

52. (S)-N-[[3-[4-[4-(N-methyl-N-2-thienylmethyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl]methyl]acetamide.

53. (S)-N-[[3-[4-[4-(N-methyl-N-(5-methyl-2-thienylmethyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl] methyl]acetamide

54. (S)-N-{3-[4-[4-(N-methyl,2-(5-bromo)thienylmethyl)aminopiperidine-1-yl]-3-fluorophenyl]-2-oxo-oxazolidin-5-yl methyl]acetamide

55. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)methyl}]homopiperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

56. (S)-N[[3-[3-Fluoro-4-[N-1[4-(2-thienylacetyl)]homopiperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

57. (S)-N[[3-[3-Fluoro-4-[N-1[4-{2-thienyl(5-nitro)methyl}]homopiperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

58. (S)-N[[3-[3-Fluoro-4-[N-1[4-(3-furylmethyl)]homopiperazinyl]phenyl]2-oxo-5-oxazolidinyl]methyl]acetamide

59. Preparation of (S)-N-[[3-[3-fluoro-4-[N-1{2-furyl-[4-(5-difluoromethyl) methyl}]piperazinyl]-2-oxo-5-oxazolidinyl]-methyl]acetamide.

60. (S)-N-[[3-[3-Fluoro-4-[N-1-[4-(2-furyl-(5-aldoxime)methyl}] piperazinyl] phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

61. (S)-N-[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-aldoxime(methyl-4-(N-carboxyaminophenyl acetate) methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

62. (S)-N-[[3-[3-Fluoro-4[N-1-[4-{2-furyl-(5-hydrazone)-methyl}]-piperazinyl]-phenyl]-2-oxo-5-oxazolidinyl]-methyl]acetamide

63. Preparation of (S)-N-[[3-[3-Fluoro-4-[N-1{2-furyl-[4-(5-hydroxymethyl)methyl}] piperazinyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

64. (S)-N-[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-cyano)methyl}] piperazinyl]phenyl] -2-oxo-5-oxazolidinyl]methyl]acetamide

65. (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-carboxy)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

66. (S)-N-[[3-Fluoro-4-[N-1[5-(1,3-dioxane)-2-furylmethyl]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

67. (S)-N-[[3-Fluoro-4-[N-1[5-(formamido)-2-furylmethyl]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

68. (S)-N-[[3-Fluoro-4-[N-1[5-(morpholine-1-carbonyl)-2-furylmethyl]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

69. (S)-N-[[3-Fluoro-4-[N-1[5-(4-(tert butoxy carbonyl)amino piperidine)-2-furylmethyl]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide

70. (S)-N-[[3-Fluoro-4-[N-1[4-{(Z)-2-methoxyimino-2-(2-furyl)acetyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

71. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(2-thiopheneacetyl)-N-methyl]amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide

72. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(5-formyl-2-furylmethyl)-N-methyl]amino]-3-azabicyclo-[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide

73. (S)-N-[[3-[3-Fluoro[4-[3-(1α,5α,6α)-6-[N-(3-thienoyl)-N-methyl]amino]-3-azabicyclo[3.1.0]hexane]phenyl]-2-oxo-5-oxazolidinyl] methyl]acetamide

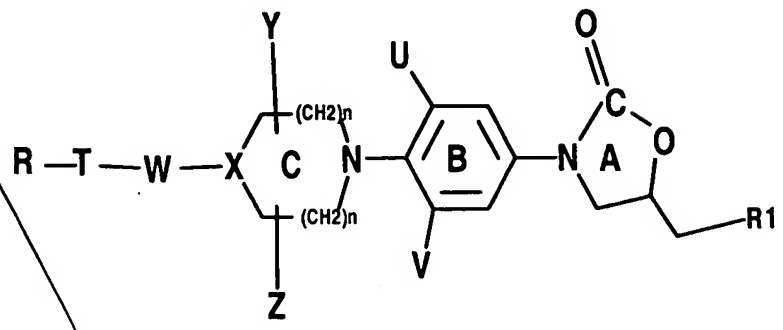
74. (S)-N-[[3-[3-fluoro-4-[N-1{2-furyl-[4-(5-fluoromethyl) methyl}]piperazinyl]-2-oxo-5-oxazolidinyl]-methyl]acetamide.

4. A pharmaceutical composition comprising the compound of claims 1, 2, or 3 and a pharmaceutical acceptable carrier.

5. A pharmaceutical composition comprising a pharmaceutically effective amount of compound according to claims 1, 2, or 3, or a physiologically acceptable acid addition salt thereof with a pharmaceutical acceptable carrier for treating microbial infections.

6. A method of treating or preventing microbial infections in a mammal comprising administering to the said mammal, the pharmaceutical composition according to claim 5.

7. A process for preparing a compound of Formula I



FORMULA I

and its pharmaceutically acceptable salts, enantiomers, diastearomers, N-oxides, prodrugs or metabolites, wherein

T is five to seven membered heterocyclic ring, aryl, substituted aryl, bound to the ring **C** with a linker **W** and the heterocyclic and aryl rings are further substituted by a group represented by **R**,

wherein R is selected from the group consisting of –CN, COR_5,$COOR_5$, $N(R_6,R_7)$, CON (R_6, R_7), CH_2NO_2, NO_2, CH_2R_8, CHR_9, -CH = N-OR_{10}, -C=CH-R_5, wherein R_5 is selected from the group consisting of H, optionally substituted C_1-C_{12}, alkyl, C_{3-12}, cycloalkyl, aryl, heteroaryl, R_6 and R_7, are independently selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently selected from the group consisting of H, C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, OR_4, SR_4, $N(R_6,R_7)$ wherein R_4 is selected from the group consisting of H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more F, Cl, Br, I or OH and R_6 and R_7 are the same as defined earlier, R_{10} is selected from the group consisting of

H, optionally substituted from H, optionally substituted C_{1-12} alkyl, C_{3-512} cycloalkyl, $C_{1-6,}$ alkoxy, C_{1-6} alkyl, aryl, heteroaryl;

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O and N;

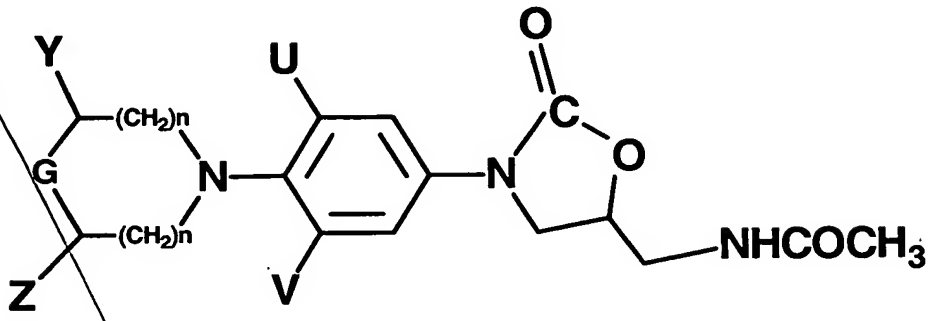
Y and Z are independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

U and V are independently selected from the group consisting of optionally substituted C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, preferably U and V are hydrogen or fluoro;

W is selected from the group consisting of CH_2, CO, CH_2NH, -$NHCH_2$, -CH_2NHCH_2, -CH_2-N (R_{11}) CH_2 -, CH_2 (R11) N-, CH (R_{11}), S, CH_2(CO), NH wherein R_{11} is optionally substituted with C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl, heteroaryl; and

R_1 is selected from the group consisting of - NHC(=O)R_2 wherein R_2 is hydrogen, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH; N(R_3, R_4) ; -$NR_2C(=S)$ R_3 : -$NR_2C(=S)SR3$ wherein R_2 is the same as defined above and R_3 and R_4 are independently selected from the group consisting of H, C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl substituted with one or more of F, Cl, Br, I or OH,

which comprises reacting an amine compound of Formula V



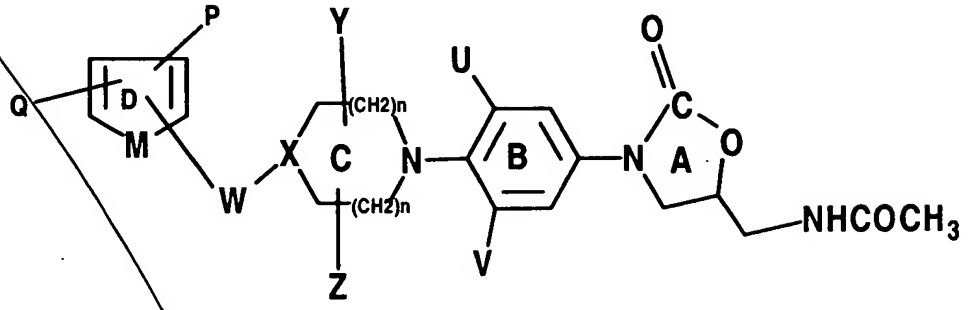
FORMULA V

with a heterocyclic compound of Formula R-T-W- R_{12} wherein G in amines of Formula V is defined as NH, $CH(NHR_{13})$, $-CH-CH_2NHR_{13}$ wherein R_{13} is H, ethyl, methyl, isopropyl, acetyl, cyclopropyl, alkoxy or acetyl and Y, Z, U, V, R_1, n, R, T and W are the same as defined earlier and R_{12} is a suitable leaving group selected from the group comprising of fluoro, chloro, bromo, SCH_3, $-SO_2CH_3$, $-SO_2CF_3$ or OC_6H_5.

8. A process for preparing a compound of Formula I as claimed in claim 7, wherein $W=CH_2$ and R-T-W-R_{12} is a five membered heterocyclic ring with aldehyde group and the compound of Formula I is produced by reductive amination.

9. A process for preparing a compound of Formula I as claimed in claim 7, wherein W = CO and R-T-W-R_{12} is a five membered heterocyclic ring with carboxylic acid, and amino compound of Formula V is acylated with activated esters in presence of condensing agents comprising 1,3-dicyclohexylcarbodiimide (DCC) and 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide (EDC).

10. A process for the preparation of compound of Formula II



FORMULA II

wherein

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O and N;

Y and Z are independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

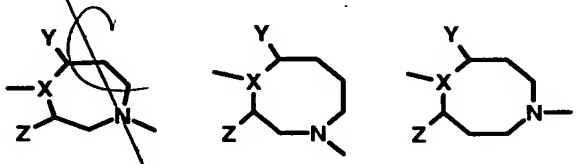
U and V are independently selected from the group consisting of optionally substituted C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, preferably U and V are hydrogen or fluoro;

W is selected from the group consisting of CH_2, CO, CH_2NH, $-NHCH_2$, $-CH_2NHCH_2$, $-CH_2-N(R_{11})CH_2-$, $CH_2(R11)N-$, $CH(R_{11})$, S, $CH_2(CO)$, NH wherein R_{11} is optionally substituted with C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl, heteroaryl; and

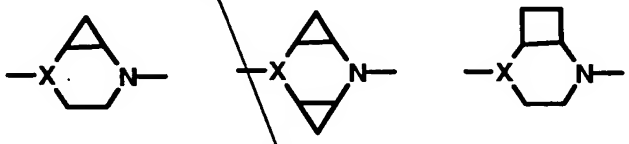
Q and P are independently selected from the group consisting of -CN, COR_5, $COOR_5$, $N(R_6, R_7)$, $CON(R_6,R_7)$, CH_2NO_2, NO_2, CH_2R_8, CHR_9, $-CH=N-OR_{10}$, $C=CH-R_5$, wherein R_5 is selected from the group consisting of H,

optionally substituted C_{1-12}alkyl, C_{3-12} cycloalkyl, aryl, heteroaryl; R_6 and R_7 are independently selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently selected from the group consisting of H, C_{1-6} alkyl,F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, OR_4, SR_4,wherein R_4 is the same as defined before, $N(R_6, R_7)$, R_{10} is selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl, heteroaryl except W= (CO), Q and P =H.

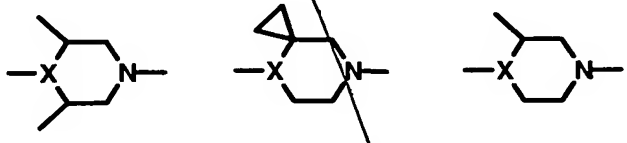
Ring C in Formula II is 6-8 membered or of larger size and the larger rings have either two or three carbons between each nitrogen atom, comprising of



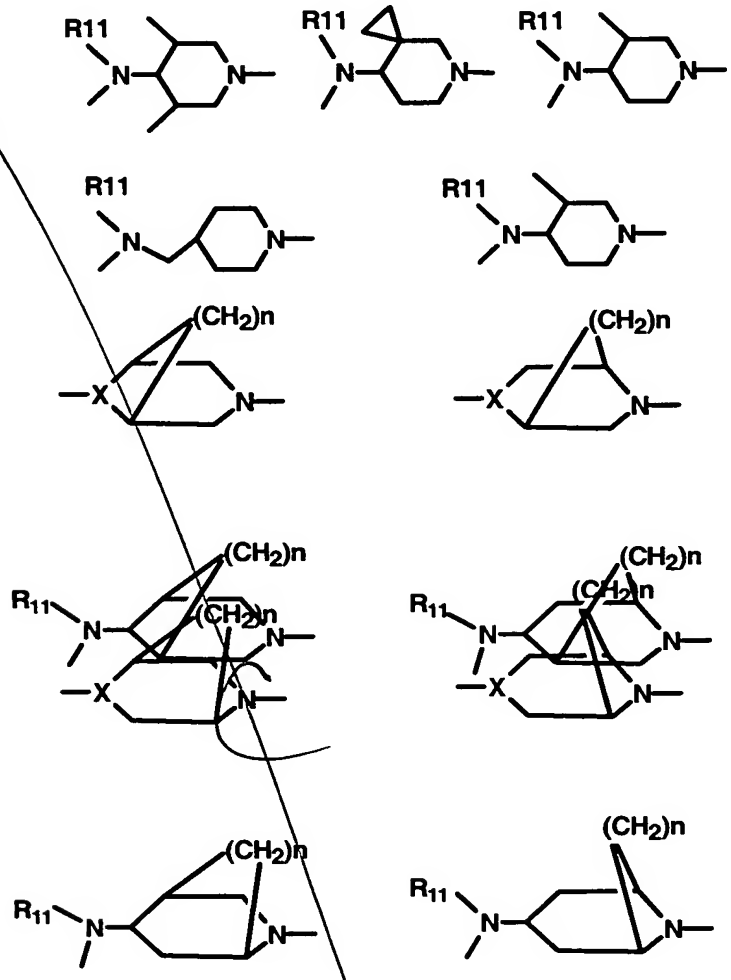
and may be bridged to form a bicyclic system as shown below,



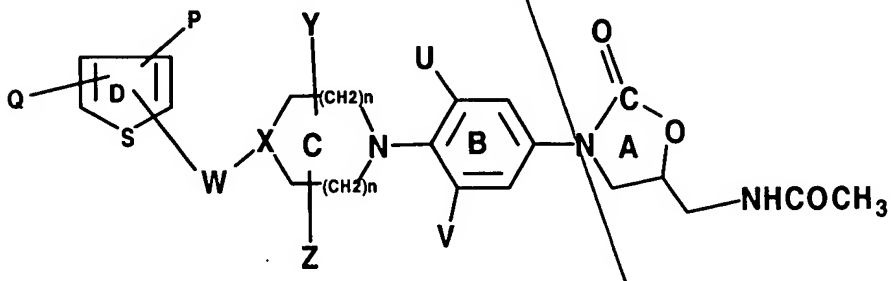
ring C is optionally substituted by Y and Z with alkyl groups, cycloalkyl groups, fluoro group, carboxylic and corresponding esters, amides, substituted alkyls or bridging alkyl groups are as shown below:



six membered ring C with X = -CH-(NHR_{11}), (wherein R_{11} is the same as defined earlier) is selected from the group consisting of the following rings;

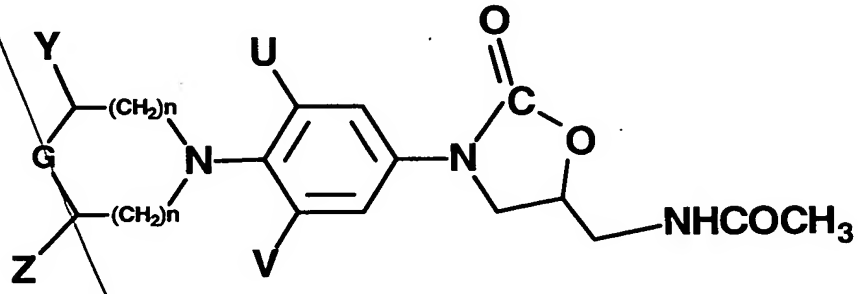


wherein M = Sulphur is shown by compounds of Formula III,



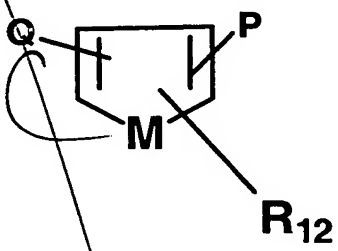
FORMULA III

wherein **P, Q, U, V, X, Y, Z, W and n** in Formula III are the same as previously defined, wherein the process comprising reacting a compound of Formula V



FORMULA V

with a compound of Formula VI



FORMULA VI

wherein P, Q, R_{12}, Y, Z, G, n, U and V are the same as defined earlier.

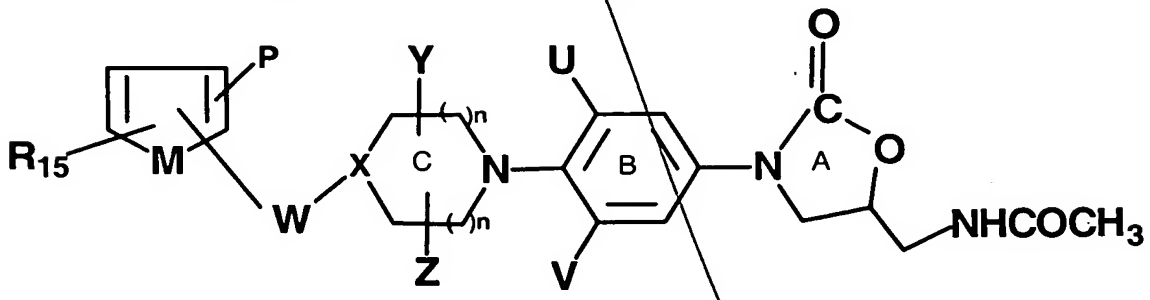
11. A process for preparing a compound of Formula II as claimed in claim 10, in a suitable solvent selected from the group consisting of dimethylformamide, dimethylacetamide, ethanol or ethylene glycol at a suitable temperature in the range of -70°C to 180°C in the presence of a suitable base selected from the group consisting of triethyl amine, diisopropyl amine, potassium carbonate and sodium bicarbonate.

12. A process of preparing a compound of Formula II as claimed in claim 10 wherein Formula VI is furalehyde and reductive alkylation of the amine of Formula V is performed with a reducing agent.

13. A process for preparing a compound of Formula II as claimed in claim 10 wherein Formula VI is furoic acid.

14. A process for preparing a compound of Formula II as claimed in claim 10 wherein the compounds of Formula II having carbonyl link are prepared by reacting heteroaromatic compound of the Formula VI including N- methyl pyrrole with the intermediate amine of Formula V in the presence of triphosgene or phosgene and carbonyl linkers are introduced between heteroaromatic compound comprising reacting 3- bromothiophene and amine of Formula V with carbon monoxide and the catalyst is selected from the group consisting of Pd $(PPh_3)_2Cl_2$ and extended chain pyrroles having dicarbonyl linkers are obtained by treatment of oxalyl chloride and amine of the Formula V.

15. A process for preparing a compound of Formula VIII



FORMULA VIII

wherein

n is an integer in the range from 0 to 3;

X is CH, CH-S, CH-O and N;

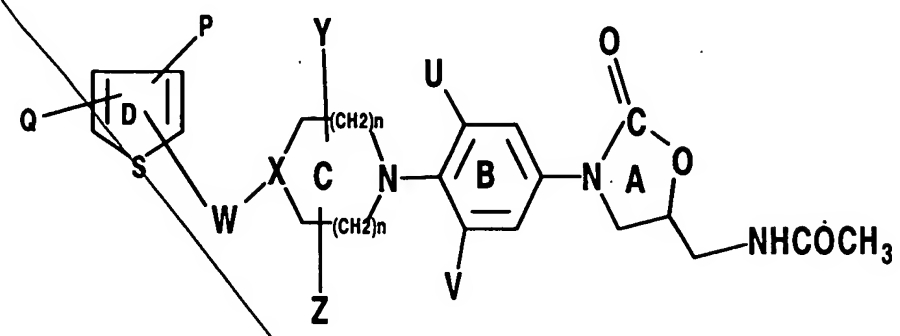
Y and Z are independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{3-12} cycloalkyl, C_{0-3} bridging group;

U and V are independently selected from the group consisting of optionally substituted C_{1-6} alkyl, F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, preferably U and V are hydrogen or fluoro;

W is selected from the group consisting of CH_2, CO, CH_2NH, -$NHCH_2$, -CH_2NHCH_2, -CH_2-N (R_{11}) CH_2 -, CH_2 (R11) N-, CH (R_{11}), S, CH_2(CO), NH wherein R_{11} is optionally substituted with C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl, heteroaryl;

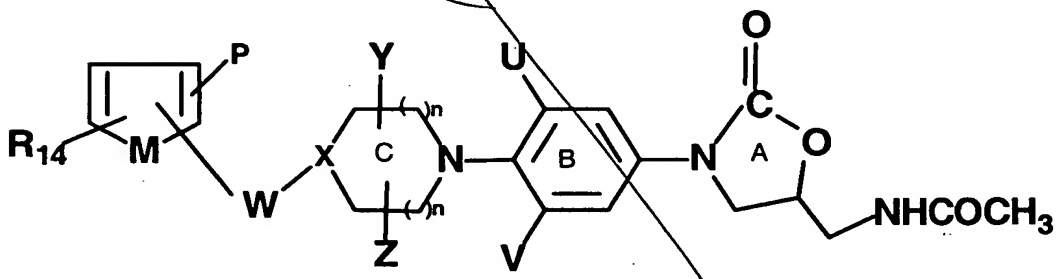
Q and P are independently selected from the group consisting of -CN, COR_5, $COOR_5$, N (R_6, R_7), CON (R_6,R_7), CH_2NO_2, NO_2, CH_2R_8, CHR_9, -CH=N-OR_{10}, C=CH-R_5, wherein R_5 is selected from the group consisting of H, optionally substituted C_{1-12}alkyl, C_{3-12} cycloalkyl, aryl, heteroaryl; R_6 and R_7 are independently selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy; R_8 and R_9 are independently selected from the group consisting of H, C_{1-6} alkyl,F, Cl, Br, C_{1-12} alkyl substituted with one or more of F, Cl, Br, I, OR_4, SR_4,wherein R_4 is the same as defined before, N(R_6, R_7), R_{10} is selected from the group consisting of H, optionally substituted C_{1-12} alkyl, C_{3-12} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkyl, aryl, heteroaryl except W= (CO), Q and P =H;

M = Sulphur is shown by compounds of Formula III



FORMULA III

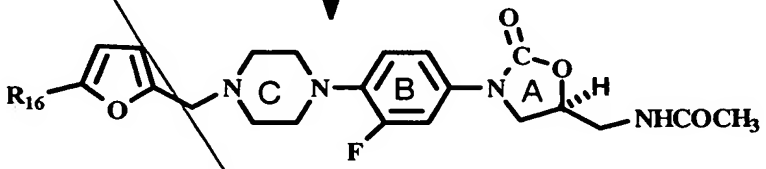
and R_{15} is the same as Q defined earlier, comprising converting a compound of Formula VII



FORMULA VII

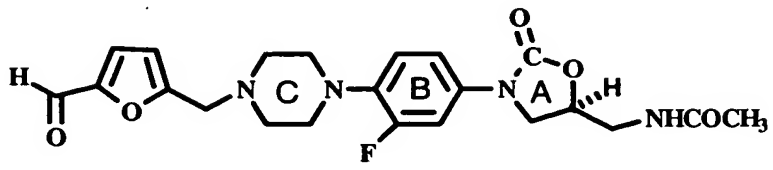
wherein in U, V, Y, Z, X, W, P, n and M are the same as defined earlier and are R_{14} is any group which can be converted to group R_{15} in one to five steps.

16. A process for preparing a compound of Formula XI



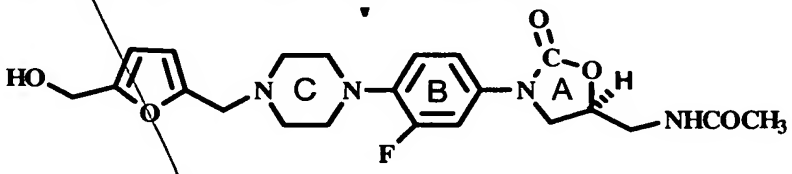
FORMULA XI

(R_{16} = $-CH_2F$ or $-CH_2F_2$) by reacting a compound of Formula IX



FORMULA IX

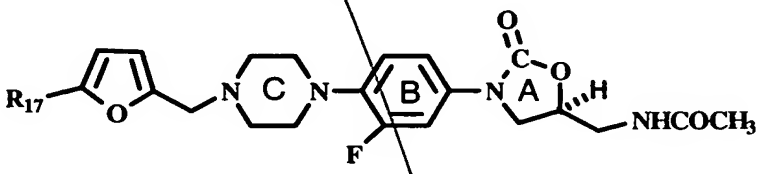
with sodium borohydride to produce a compound of Formula X



FORMULA X

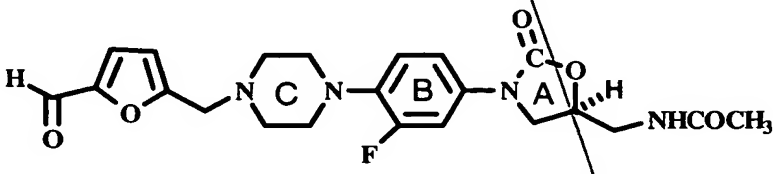
and further reacting this compound with diethylamino sulfurtrifluoride to produce compound of Formula XI.

17. A process for preparing a compound of Formula XII



FORMULA XII

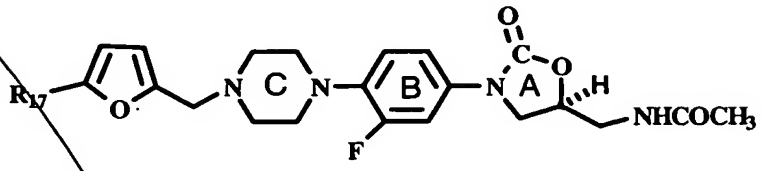
wherein R_{17} = $\diagdown$=N-OH which comprises reacting (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]-methyl] acetamide of Formula IX



FORMULA IX

with hydroxylamine.

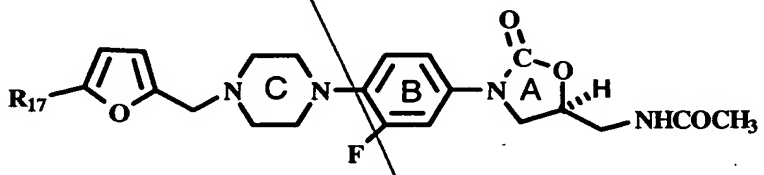
18. A process for preparing a compound of Formula XII



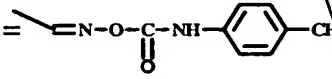
FORMULA XII

wherein R_{17} =  which comprises reacting (S)-N-[[3-[3-Fluoro-4[N-1-[4-{2-furyl-(5-hydrazone)-methyl}]-piperazinyl]-phenyl]-2-oxo-5-oxazolidinyl]-methyl]acetamide with hydrazine hydrate.

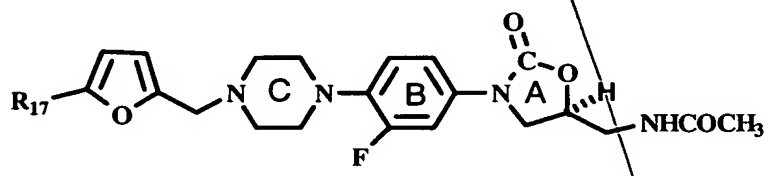
19. A process for preparing a compound of Formula XII



FORMULA XII

wherein R_{17} =  which comprises reacting (S)-N-[[3-[3-Fluoro-4-[N-1-[4-(2-furyl-(5-aldoxime)methyl}] piperazinyl] phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide with isocyanate.

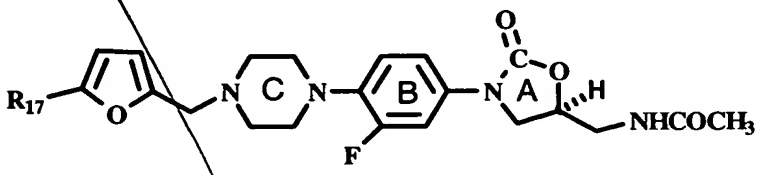
20. A process for preparing a compound of Formula XII



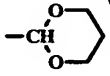
FORMULA XII

wherein R_{17} = CN which comprises reacting (S)-N-[[3-[3-Fluoro-4-[N-1[4-{2-furyl(5-cyano)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide with trifilic anhydride and triethylamine.

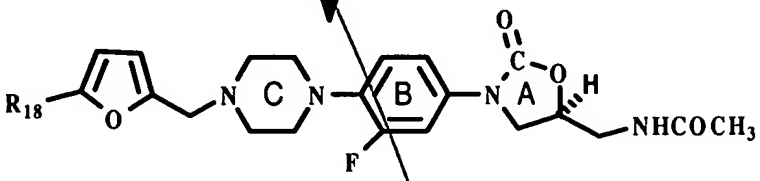
21. A process for preparing a compound of Formula XII



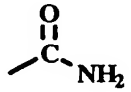
FORMULA XII

wherein R17 =  which comprises reacting (S)-N-[[3-Fluoro-4-[N-1[5-(1,3-dioxane)-2-furylmethyl]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl]acetamide with 1,3-propane diol and BF_3 etherate.

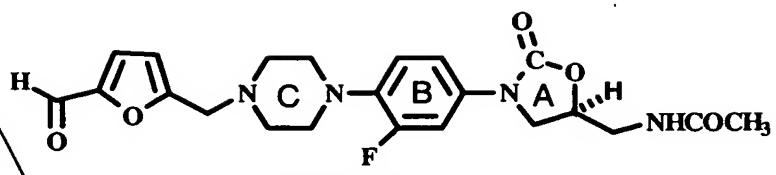
22. A process for the preparation of the compound of Formula XIV



FORMULA XIV

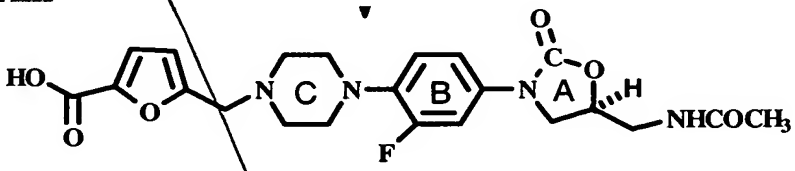
wherein R_{18} = 

which comprises reacting (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)-methyl}] piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula IX



FORMULA IX

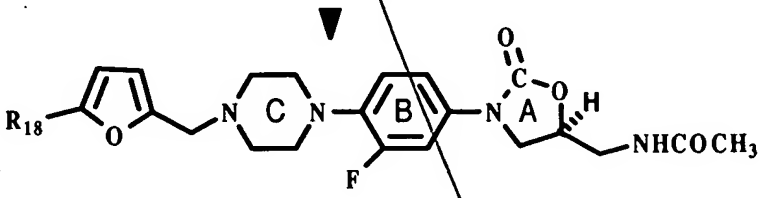
with Ag_2O to produce (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-carboxy)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII followed by reacting (S)-N-[[3-Fluoro-4-[N-1[4-(2-furyl- (5-carboxyethyl)methyl)piperazinyl] phenyl]- 2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII



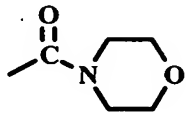
FORMULA XIII

with aqueous ammonia to produce Formula XIV.

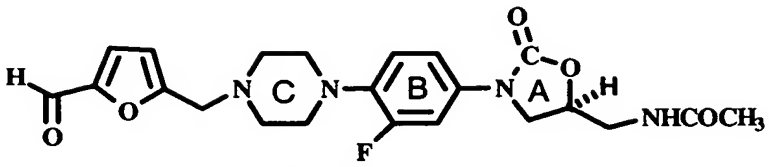
23. A process for the preparation of the compound of Formula XIV



FORMULA XIV

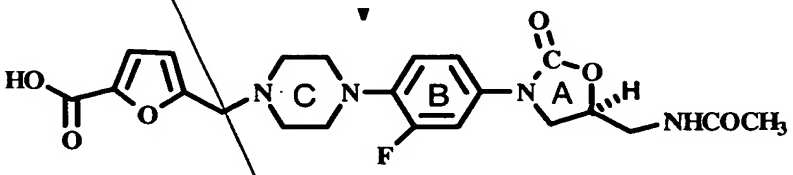
wherein R_{18} = 

which comprises reacting (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)-methyl}] piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula IX



FORMULA IX

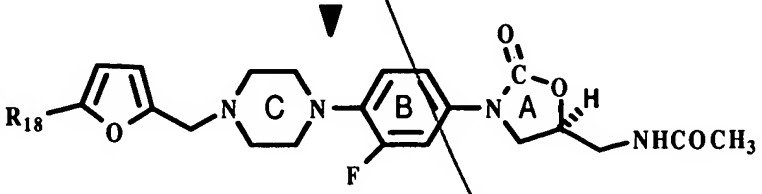
with Ag_2O to produce (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-carboxy)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII followed by reacting (S)-N-[[3-Fluoro-4-[N-1[4-(2-furyl- (5-carboxyethyl)methyl)piperazinyl] phenyl]- 2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII



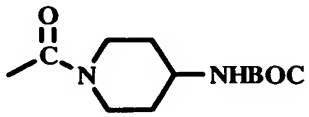
FORMULA XIII

with thionyl chloride to produce Formula XIV.

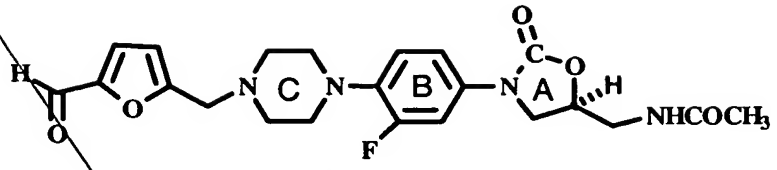
24. A process for the preparation of the compound of Formula XIV



FORMULA XIV

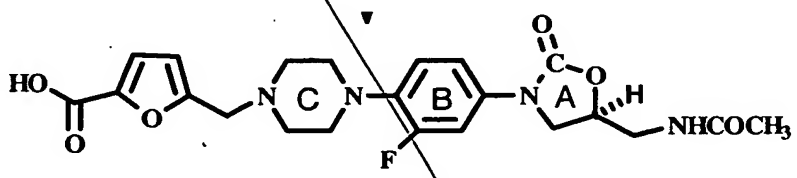
wherein R_{18} = 

which comprises reacting (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-formyl)-methyl}] piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula IX



FORMULA IX

with Ag_2O to produce (S)-N-[[3-Fluoro-4-[N-1[4-{2-furyl(5-carboxy)methyl}]piperazinyl]phenyl]-2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII followed by reacting (S)-N-[[3-Fluoro-4-[N-1[4-(2-furyl- (5-carboxyethyl)methyl)piperazinyl] phenyl]- 2-oxo-5-oxazolidinyl]methyl] acetamide of Formula XIII



FORMULA XIII

with morpholine in the presence of oxalyl chloride to produce Formula XIV.